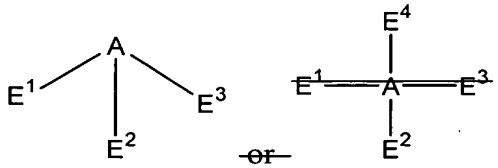
This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A polypodal chelant having the formula:



and pharmaceutically acceptable salts thereof, wherein

A is a spacer selected from the group consisting of R^1-C, R^1-Si, R^1-Ge, N, P and P(O), ~~or a~~

~~macrocyclic group having the formula:~~

~~$-[C(L)R^2(CR^3R^4)_a]_b-$,~~

~~$-[N(L)C(W)(CR^5R^6)_e]_d-$,~~

~~$-[OC(W)C(L)R^7(CR^8R^9)_e]_f-$ or~~

~~$-\{[NR^{10}C(W)C(L)R^{11}(CR^{12}R^{13})_g]_h[NR^{14}C(W)(CR^{15}R^{16})_i]_j\}-$,~~

~~wherein a is an integer selected from 1 to 3;~~

~~b is an integer selected from 3 to 5;~~

~~c is an integer selected from 1 to 3;~~

~~d is an integer selected from 3 or 4;~~

~~e is an integer selected from 1 to 3;~~

~~f is an integer selected from 3 or 4;~~

~~g is an integer selected from 1 to 3;~~

~~h is an integer selected from 3 or 4;~~

~~i is an integer selected from 1 to 3;~~

~~j is an integer selected from 0 to 3;~~

~~L is a direct bond to E^1, E^2, E^3, and E^4;~~

~~W is H_2 or O;~~

R^1, ~~R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, and R^{16} are~~ is independently selected at each occurrence from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkenyl, C_1-C_6 fluoroalkenyl, benzyl, fluorobenzyl, phenyl and fluorophenyl;

E^1, E^2, and E^3, ~~and E^4~~ are chelating arms each independently having the formula:

$$(CR^{17}R^{18})_k\text{-}Z\text{-}X\text{-}(CR^{19}R^{20})_l NR^{21}R^{22}$$

wherein

k is an integer selected from 0 to 3, provided that when A is N ~~or~~

~~$[N(L)C(W)(CR^5R^6)_e]_d$~~, k is 1-3;

l is an integer selected from 1 to 3;

Z is selected from the group consisting of a bond, O, NH, NR^1NR^1, ONH and $N(OR^1)$;

X is selected from the group consisting of C(O), $S(O)_2$ and $P(O)(OR^1)$;

R^{17}, R^{18}, R^{19}, R^{20}, R^{21} and R^{22} are independently selected from the group consisting of H, C_1-C_{10} alkyl substituted with 0-5 R^{23}, C_1-C_{10} fluoroalkyl substituted with 0-5 R^{23}, C_2-C_{10} alkenyl substituted with 0-5 R^{23}, C_2-C_{10} fluoroalkenyl substituted with 0-5 R^{23}, aryl substituted with 0-5 R^{23}, C_7-C_{16} alkaryl wherein the aryl is substituted with 0-5 R^{23}, and fluoroaryl substituted with 0-5 R^{23}; or R^{17} and R^{18}, R^{19} and R^{20} or R^{21} and R^{22} may be taken together to form a C_3-C_{10} cycloalkyl or C_3-C_{10} cycloalkenyl optionally interrupted with C(O)NH, NH,

NHC(O), NHC(O)NH, NHC(S)NH, O, S, S(O), $S(O)_2$, $P(O)(OR^{24})$, $P(O)(OR^{24})O$ or $P(O)(NHR^{24})O$, or to form a $=CH-R^{22a}$ group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, $C(=O)R^{24}$, $C(=O)OR^{24}$, $C(=O)NR^{24}{}_2$, $PO(OR^{24})_2$ and $S(O)_2OR^{24}$; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkenyl, benzyl, fluorobenzyl, phenyl, and fluorophenyl,

with the proviso that when A is CH_3-C and E^1 is CH_2-NH-C(O)-$C(CH_3)_2$-NH_2, at least one of E2 or E3 is other than CH_2-NH-C(O)-$C(CH_3)_2$-NH_2.

Claim 2 (Canceled)

3. (Original) A polypodal chelant according to claim 1, characterized by being tripodal.

4. (Currently Amended) A tripodal chelant according to claim 3, wherein A is a spacer selected from the group consisting of R^1-C, N, P, and P(O)~~, and -[N(L)C(W)(CR^5R^6)$_e$]$_d$-~~; R^1~~, R^5, and R^6 are~~ is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl, and phenyl;

E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

R^{21} and R^{22} are independently selected at each occurrence from the group consisting of H, C_1-C_{10} alkyl substituted with 0-2 R^{23}, C_2-C_{10} alkenyl substituted with 0-2 R^{23}, aryl substituted with 0-2 R^{23}, and C_7-C_{16} alkaryl, wherein the aryl is substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a $=CH-R^{22a}$ group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, $C(=O)R^{24}$, $C(=O)OR^{24}$, $C(=O)NR^{24}{}_2$, $PO(OR^{24})_2$ and $S(O)_2OR^{24}$; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl and phenyl.

5. (Currently Amended) A tripodal chelant according to claim 4, wherein A is a spacer selected from the group consisting of N, and P(O), ~~and $[N(L)C(W)(CR^5R^6)_e]_d$; R^5 and R^6 are independently selected at each occurrence from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, phenyl and benzyl~~; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein R^{21} and R^{22} are independently selected from the group consisting of C_1-C_{10} alkyl substituted with 0-2 R^{23}, and aryl substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a $=CH\text{-}R^{22a}$ group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23}; R^{23} is selected from the group consisting of OH, C_1-C_3 hydroxyalkyl, COOH, $PO(OH)_2$ and $S(O)_2OH$.

6. (Original) A tripodal chelant according to claim 5, wherein A is a spacer selected from the group consisting of N, and P(O); E^1, E^2 and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein k is 2-3; R^{21} is independently selected from the group consisting of CH_3, CH_2COOH, and $CH_2PO(OH)_2$; and R^{22} is independently selected from the group consisting of CH_2COOH, and $CH_2PO(OH)_2$.

7. (Original) A tripodal chelant according to claim 6, wherein A is N or P(O); E^1, E^2, and E^3 are$(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$, and k is 2-3.

8. (Original) A tripodal chelant according to claim 7, wherein A is N; E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$, and k is 2-3.

9. (Original) A tripodal chelant according to claim 7, wherein A is N; E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_3)(CH_2COOH)$, and k is 2-3.

Claims 10-14 (Canceled)

15. (Original) A radiopharmaceutical compound comprising a polypodal chelant according to claim 1, chelated with a radionuclide selected from the group consisting of ^{52m}Mn, ^{52}Fe, ^{55}Co, ^{64}Cu, ^{67}Cu, ^{67}Ga, ^{68}Ga, ^{90}Y, ^{94m}Tc, ^{99m}Tc, ^{105}Rh, ^{109}Pd, ^{111}In, ^{117m}Sn, ^{149}Pr, ^{153}Sm, ^{159}Gd, ^{166}Ho, ^{169}Yb, ^{177}Lu, ^{186}Re, ^{188}Re, ^{203}Pb, ^{211}Pb, and ^{212}Bi.

Claim 16 (Canceled)

17. (Original) The radiopharmaceutical compound according to claim 15, wherein said polypodal chelant is characterized by being tripodal.

18. (Currently Amended) The radiopharmaceutical compound according to claim 17, wherein A of said tripodal chelant is a spacer selected from the group consisting of R^1-C, N, P, and P(O)~~, and~~ ~~$-[N(L)C(W)(CR^5R^6)_e]_d-$~~; R^1~~, R^5, and R^6 are~~ is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl, and phenyl; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

R^{21} and R^{22} are independently selected at each occurrence from the group consisting of H, C_1-C_{10} alkyl substituted with 0-2 R^{23}, C_2-C_{10} alkenyl substituted with 0-2 R^{23}, aryl

substituted with 0-2 R^{23}, and C_7-C_{16} alkaryl, wherein the aryl is substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, C(=O)R^{24}, C(=O)OR^{24}, C(=O)N$R^{24}{}_2$, PO(OR^{24})$_2$ and S(O)$_2$OR^{24}; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl and phenyl.

19. (Currently Amended) The radiopharmaceutical compound according to claim 18, wherein A is a spacer selected from the group consisting of N~~,~~ and P(O)~~, and [N(L)C(W)(CR^{5}R^6)$_e$]$_d$; R^5 and R^6 are independently selected at each occurrence from the group consisting of H, C$_1$-C$_6$ alkyl, C$_3$-C$_6$ cycloalkyl, phenyl and benzyl~~; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein R^{21} and R^{22} are independently selected from the group consisting of C_1-C_{10} alkyl substituted with 0-2 R^{23}, and aryl substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23}; R^{23} is selected from the group consisting of OH, C_1-C_3 hydroxyalkyl, COOH, PO(OH)$_2$ and S(O)$_2$OH.

20. (Original) The radiopharmaceutical compound according to claim 19, wherein A is N or P(O); E^1, E^2 and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein k is 2-3; R^{21} is independently selected from the group consisting of CH_3, CH_2COOH, and $CH_2PO(OH)_2$; and R^{22} is independently selected from the group consisting of CH_2COOH, and $CH_2PO(OH)_2$.

21. (Original) The radiopharmaceutical compound according to claim 20, wherein A is N or P(O); k is 2-3; and E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$.

22. (Original) The radiopharmaceutical compound according to claim 21, wherein A is N; E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$, and k is 2-3.

Claims 23-26 (Canceled)

27. (Original) An MRI contrast agent comprising a polypodal chelant according to claim 1, chelated with a paramagnetic metal ion of atomic number 21-29, 42-44 or 58-70.

Claim 28 (Canceled)

29. (Previously Presented) The MRI contrast agent according to claim 27, wherein said polypodal chelant is characterized by being tripodal.

30. (Currently Amended) The MRI contrast agent according to claim 29, wherein A of said tripodal chelant is a spacer selected from the group consisting of R^1-C, N, P, and P(O)~~, and -[N(L)C(W)(CR^{5}R^6)$_e$]$_d$-~~; R^1~~, R^5, and R^6 are~~ is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl, and phenyl; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

R^{21} and R^{22} are independently selected at each occurrence from the group consisting of H, C_1-C_{10} alkyl substituted with 0-2 R^{23}, C_2-C_{10} alkenyl substituted with 0-2 R^{23}, aryl substituted with 0-2 R^{23}, and C_7-C_{16} alkaryl, wherein the aryl is substituted with 0-2

R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, $C(=O)R^{24}$, $C(=O)OR^{24}$, $C(=O)NR^{24}{}_2$, $PO(OR^{24})_2$ and $S(O)_2OR^{24}$; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl and phenyl.

31. (Currently Amended) The MRI contrast agent according to claim 30, wherein A is a spacer selected from the group consisting of N~~,~~ and P(O)~~, and -[N(L)C(W)(CR^{5}R^6)$_e$]$_d$-~~; R^5 and R^6 are independently selected at each occurrence from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, phenyl and benzyl~~; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein R^{21} and R^{22} are independently selected from the group consisting of C_1-C_{10} alkyl substituted with 0-2 R^{23}, and aryl substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23}; R^{23} is selected from the group consisting of OH, C_1-C_3 hydroxyalkyl, COOH, $PO(OH)_2$ and $S(O)_2OH$.

32. (Original) The MRI contrast agent according to claim 31, wherein A is N or P(O); E^1, E^2 and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein k is 2-3; R^{21} is independently selected from the group consisting of CH_3, CH_2COOH, and $CH_2PO(OH)_2$; and R^{22} is independently selected from the group consisting of CH_2COOH, and $CH_2PO(OH)_2$.

33. (Original) The MRI contrast agent according to claim 32, wherein A is N or P(O); k is 2-3; and E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$.

34. (Original) The MRI contrast agent according to claim 33, wherein A is N; E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$, and k is 2-3.

Claims 35-38 (Canceled)

39. (Original) An X-ray or CT contrast agent comprising a polypodal chelant according to claim 1, chelated with a heavy metal ion of atomic number 21-31, 39-50, 56-80, 82, 83 or 90.

Claim 40 (Canceled)

41. (Previously Presented) The X-ray or CT contrast agent according to claim 39, wherein said polypodal chelant is characterized by being tripodal.

42. (Currently Amended) The X-ray or CT contrast agent according to claim 41, wherein A of said tripodal chelant is a spacer selected from the group consisting of R^1-C, N, P, and P(O)~~, and -[N(L)C(W)(CR^{5}R^6)$_e$]$_d$-~~; R^1~~, R^5, and R^6 are~~ is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl, and phenyl; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

R^{21} and R^{22} are independently selected at each occurrence from the group consisting of H, C_1-C_{10} alkyl substituted with 0-2 R^{23}, C_2-C_{10} alkenyl substituted with 0-2 R^{23}, aryl substituted with 0-2 R^{23}, and C_7-C_{16} alkaryl, wherein the aryl is substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, $C(=O)R^{24}$, $C(=O)OR^{24}$, $C(=O)NR^{24}{}_2$, $PO(OR^{24})_2$ and $S(O)_2OR^{24}$; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, benzyl and phenyl.

43. (Currently Amended) The X-ray or CT contrast agent according to claim 42, wherein A is a spacer selected from the group consisting of N~~,~~ and P(O)~~, and [N(L)C(W)(CR^{5}R^6)$_e$]$_d$; R^5 and R^6 are independently selected at each occurrence from the group consisting of H, C$_1$-C$_6$ alkyl, C$_3$-C$_6$ cycloalkyl, phenyl and benzyl~~; E^1, E^2, and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein R^{21} and R^{22} are independently selected from the group consisting of C_1-C_{10} alkyl substituted with 0-2 R^{23}, and aryl substituted with 0-2 R^{23}, or R^{21} and R^{22} may be taken together to form a =CH-R^{22a} group, wherein R^{22a} is aryl substituted with 0-5 R^{23}, or heterocycle substituted by 0-5 R^{23}; R^{23} is selected from the group consisting of OH, C_1-C_3 hydroxyalkyl, COOH, $PO(OH)_2$ and $S(O)_2OH$.

44. (Original) The X-ray or CT contrast agent according to claim 43, wherein A is N or P(O); E^1, E^2 and E^3 are chelating arms each independently having the formula:

$$(CH_2)_k\text{-}NHCOCH_2NR^{21}R^{22}$$

wherein k is 2-3; R^{21} is independently selected from the group consisting of CH_3, CH_2COOH, and $CH_2PO(OH)_2$; and R^{22} is independently selected from the group consisting of CH_2COOH, and $CH_2PO(OH)_2$.

45. (Original) The X-ray or CT contrast agent according to claim 44, wherein A is N or P(O); k is 2-3; and E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$.

46. (Original) The X-ray or CT contrast agent according to claim 45, wherein A is N; E^1, E^2 and E^3 are $(CH_2)_k$-$NHCOCH_2N(CH_2COOH)_2$, and k is 2-3.

Claims 47-65 (Canceled)

66. (Original) A radiopharmaceutical composition for treating pathological processes involving angiogenic neovasculature in a patient in need thereof comprising a therapeutically effective amount of the radiopharmaceutical compound of claim 15 and a pharmaceutically acceptable carrier.

67. (Original) The composition of claim 66, wherein said radiopharmaceutical compound comprises a beta, alpha or Auger electron-emitting isotope.

68. (Original) A method for treating pathological processes involving angiogenic neovasculature in a patient in need thereof comprising administering to said patient a therapeutically effective amount of the radiopharmaceutical composition of claim 66.

69. (Original) A composition for radioactive imaging comprising an effective amount of the radiopharmaceutical compound of claim 15 and a pharmaceutically acceptable carrier.

70. (Original) A method for radioactive imaging comprising administering to a patient to be imaged sufficiently in advance thereto an effective amount of the radioactive imaging composition of claim 69.

71. (Original) A method according to claim 70, wherein said imaging method is gamma scintigraphy or positron-emission tomography.

72. (Original) A composition for X-ray imaging comprising an effective amount of the contrast agent of claim 39 and a pharmaceutically acceptable carrier.

73. (Original) A method for X-ray imaging comprising administering to a patient to be imaged sufficiently in advance thereof an effective amount of the X-ray imaging composition of claim 72.

74. (Original) A method according to claim 73, wherein said X-ray imaging method is CT imaging.

75. (Original) A composition for magnetic resonance imaging comprising an effective amount of the contrast agent of claim 27 and a pharmaceutically acceptable carrier.

76. (Original) A method for magnetic resonance imaging comprising administering to a patient to be imaged sufficiently in advance thereof an effective amount of the magnetic resonance imaging composition of claim 75.

77. (Original) A pharmaceutical composition for treating heavy metal toxicity in a patient in need thereof, comprising a therapeutically effective amount of the polypodal chelant of claim 1 and a pharmaceutically acceptable carrier.

78. (Original) A method for treating heavy metal toxicity in a patient in need thereof, comprising administering to said patient a therapeutically effective amount of the pharmaceutical composition of claim 77.

79. (Original) A radiopharmaceutical treatment kit comprising: a sterile, non-pyrogenic formulation comprising a radiopharmaceutical composition according to claim 66, a pH 3-9 buffering agent and optionally one or more additives selected from the group consisting of ancillary ligands, reducing agents, transfer ligands, buffers, lyophilization aids, stabilization aids, solubilization aids, bacteriostats and equipment for administering said composition.

80. (Original) The treatment kit of claim 79, wherein said formulation is in the form of a sterile solution or lyophilized solid.

81. (Original) A diagnostic kit comprising: a sterile, non-pyrogenic formulation comprising a radiopharmaceutical composition according to claim 66, a pH 3-9 buffering agent and optionally one or more additives selected from the group consisting of ancillary ligands, reducing agents, transfer ligands, buffers, lyophilization aids, stabilization aids, solubilization aids, bacteriostats and equipment for administering said composition.

82. (Original) The diagnostic kit of claim 81, wherein said formulation is in the form of a sterile solution or lyophilized solid.

83. (Original) A diagnostic kit comprising: a sterile, non-pyrogenic formulation comprising an X-ray imaging composition according to claim 72, a pH 3-9 buffering agent and optionally one or more additives selected from the group consisting of ancillary ligands, reducing agents, transfer ligands, buffers, lyophilization aids, stabilization aids, solubilization aids, bacteriostats and equipment for administering said composition.

84. (Original) The diagnostic kit of claim 83, wherein said formulation is in the form of a sterile solution or lyophilized solid.

85. (Original) A diagnostic kit comprising: a sterile, non-pyrogenic formulation comprising a magnetic resonance imaging composition according to claim 75, a pH 3-9 buffering agent and optionally one or more additives selected from the group consisting of ancillary ligands, reducing agents, transfer ligands, buffers, lyophilization aids,

stabilization aids, solubilization aids, bacteriostats and equipment for administering said composition.

86. (Original) The diagnostic kit of claim 85, wherein said formulation is in the form of a sterile solution or lyophilized solid.

87. (Currently Amended) A compound having the formula:

$$A[(CR^{17}R^{18})_kNH_2]_m$$

wherein A is a spacer selected from the group consisting of R^1-C, R^1-Si, R^1-Ge, N, P and P(O)~~, or a macrocyclic group having the formula:~~

~~$-[C(L)R^2(CR^3R^4)_a]_b-$,~~

~~$-[N(L)C(W)(CR^5R^6)_e]_d-$,~~

~~$-[OC(W)C(L)R^7(CR^8R^9)_e]_f-$ or~~

~~$-\{[NR^{10}C(W)C(L)R^{11}(CR^{12}R^{13})_g]_h[NR^{14}C(W)(CR^{15}R^{16})_i]_j\}-$,~~

wherein ~~a is an integer selected from 1 to 3;~~

~~b is an integer selected from 3 to 5;~~

~~c is an integer selected from 1 to 3;~~

~~d is an integer selected from 3 or 4;~~

~~e is an integer selected from 1 to 3;~~

~~f is an integer selected from 3 or 4;~~

~~g is an integer selected from 1 to 3;~~

~~h is an integer selected from 3 or 4;~~

~~i is an integer selected from 1 to 3;~~

~~j is an integer selected from 0 to 3;~~

k is an integer selected from 0 to 3;

m is ~~an integer selected from~~ 3 ~~or 4~~;

~~L is a direct bond to $[(CR^{17}R^{18})_kNH_2]$;~~

~~W is H_2 or O;~~

R^1~~, R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, and R^{16} are~~ is independently selected at each occurrence from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkenyl, C_1-C_6 fluoroalkenyl, benzyl, fluorobenzyl, phenyl and fluorophenyl;

R^{17} and R^{18} are independently selected from the group consisting of H, C_1-C_{10} alkyl substituted with 0-5 R^{23}, C_1-C_{10} fluoroalkyl substituted with 0-5 R^{23}, C_2-C_{10} alkenyl substituted with 0-5 R^{23}, C_2-C_{10} fluoroalkenyl substituted with 0-5 R^{23}, aryl substituted with 0-5 R^{23}, C_7-C_{16} alkaryl wherein the aryl is substituted with 0-5 R^{23}, and fluoroaryl substituted with 0-5 R^{23}; or R^{17} and R^{18} may be taken together to form a C_3-C_{10} cycloalkyl or C_3-C_{10} cycloalkenyl optionally interrupted with C(O)NH, NH, NHC(O), NHC(O)NH, NHC(S)NH, O, S, S(O), $S(O)_2$, $P(O)(OR^{24})$, $P(O)(OR^{24})O$ or $P(O)(NHR^{24})O$, or to form a $=CH\text{-}R^{22a}$ group, wherein R^{22a} is aryl substituted with 0-5 R^{23} or heterocycle substituted by 0-5 R^{23};

R^{23} is selected from the group consisting of H, OH, C_1-C_3 alkyl, C_1-C_3 hydroxyalkyl, $C(=O)R^{24}$, $C(=O)OR^{24}$, $C(=O)NR^{24}{}_2$, $PO(OR^{24})_2$ and $S(O)_2OR^{24}$; and

R^{24} is selected from the group consisting of H, C_1-C_6 alkyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkyl, C_1-C_6 alkenyl, C_3-C_6 cycloalkyl, C_1-C_6 fluoroalkenyl, benzyl, fluorobenzyl, phenyl, and fluorophenyl,

with the proviso that when A is H-Si, ~~and m is 3,~~ k is other than 0, and when A is CH_3-C and k is 1 and R_{17} is H, R_{18} is other than H.

Claims 88-110 (Canceled)